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Increases in Primary Care Physician Income due to the Patient Protection and Affordable Care Act of 2010 – Continued Tweaking of Physician Payment

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The Patient Protection and Affordable Care Act (ACA) authorizes several changes to the Resource-Based Relative Value Scale (RBRVS) system that are designed to increase primary care physician personal income and reduce geographic variation in primary care payment. In this brief, the ACA-authorized primary care payment adjustments are modeled in a prototypical rural primary care practice to assess both the potential impact on physician personal income and the likelihood that the changes will achieve the desired policy outcome.

Key Findings

- The Patient Protection and Affordable Care Act (ACA) increases physician personal income in a prototypical primary care practice an average of \$3,537 (1.9%) in 2010 compared to baseline income as if the ACA were not enacted. In 2011, physician personal income in a prototypical primary care practice increases by an average of \$12,013 (9.3%) compared to baseline.
- Due to Geographic Practice Cost Index (GPCI) changes legislated by the ACA, physician personal income increases are greater in entirestate Medicare payment localities than in states with multiple Medicare payment localities.
- The requirement that at least 60% of a practice's furnished services must be specific "primary care services" to receive the ACA primary care bonus may eliminate eligibility for rural primary care practices that tend to offer more procedures (thus proportionally fewer primary care services) than urban/suburban practices.
- The ACA primary care payment increases may be too small to have a significant impact on primary care and rural physician shortages. Targeted and significant primary care payment bonuses may be a more effective policy to reduce specific physician shortages.



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Background

Sections 3102 and 5501 of the ACA describe several changes to the RBRVS system. Specifically, the ACA adjusts the Geographic Practice Cost Indices (GPCIs) and provides a bonus for furnishing primary care services. Specific changes include:

- Extending the Work GPCI floor of 1.000 through 2010. (The model assumes the floor will be further extended through 2011);
- Beginning in 2010, adjusting the Practice Expense GPCIs by ½ the difference between the employee wage and rents portion of each Medicare payment locality Practice Expense GPCI and the employee wage and rents portion of the national average Practice Expense GPCI. The same adjustment will be made beginning in 2011;
- Beginning in 2011, increasing the Practice Expense GPCI to 1.000 for Frontier states (Montana, North Dakota, South Dakota, Utah and Wyoming); and
- Beginning in 2011, providing a 10% bonus for primary care services (HCPCS codes 99201–99215, 99304–99340 and 99341–99350) furnished by a primary care practitioner (a physician who has a primary specialty of family medicine, internal medicine, geriatric medicine or pediatric medicine; a nurse practitioner; a clinical nurse specialist; or a physician assistant) if primary care services account for at least 60% of the Medicare allowed charges. (Note that preventive health services are not included.)

This brief presents the results of a model that calculates the effect of the ACA primary care payment changes for a prototypical primary care practice. The model assumes that the practice will be eligible for the primary care bonus.¹ Since many of the final rules regarding ACA primary care payment have not yet been released, some variation between model calculations and final rule results is possible. Importantly, the practice model is *prototypical*; thus, it does not represent any one practice. Actual payment increases will vary by individual practice and physician. Nonetheless, analysis of a prototypical primary care practice provides policy makers and other stakeholders an important assessment of ACA impact. For each Medicare payment locality, the model calculates practice payment and physician personal income changes compared to a baseline as if the ACA were not enacted (Figure 6).

¹ The Health Professional Shortage Area (HPSA) bonus is not included in the model since it is not legislated by the ACA.

Methodology

ACA Provisions Modeling

The RBRVS is the system by which Medicare reimburses physicians for medical services. The RBRVS adds three relative values (physician work, practice expense, and malpractice insurance expense) for each individual physician service, adjusts each of the relative values for geographic variation and then multiplies the sum by a conversion factor converting relative value units (RVUs) to dollars. The ACA adjusts two parts of the RBRVS (Work GPCI and Practice Expense GPCI) and adds a primary care bonus. For this policy brief, we have developed the following specific calculations to project ACA impact on primary care practice payment and physician personal income.

• Work GPCI Floor of 1.000

For 2010 and 2011, all Medicare payment localities with GPCIs less than 1.000 are increased to 1.000.

Practice Expense GPCI Adjustments

The ACA mandates GPCI adjustments based on expenses attributable to the "employee wage and rent portion" of the GPCI. Therefore, the model uses the current cost share weights (Figure 1) to determine the proportion of practice expense attributable to employee wage and rent. Employee compensation (wages) and office rent (rents) equals 70.675% of all practice expenses [(18.654 + 12.209) / 43.669 = .70675].

Expense Category	Current Cost Share Weight			
Physician Work	52.466%			
Practice Expense	43.669%			
Employee Compensation	18.654%			
Office Rent	12.209%			
Equipment, Supplies, Other	12.806%			
Malpractice Insurance	3.865%			
Total	100%			

Figure 1

The model then uses the following process to determine the new Practice Expense GPCIs. If the Medicare payment locality's Practice Expense GPCI is less than the national average Practice Expense GPCI, the Medicare payment locality Practice Expense GPCI is multiplied by 70.675% and then subtracted from the product of the national average Practice Expense GPCI multiplied by 70.675%. The result is then multiplied by ½. This value is added to the original Medicare payment locality Practice Expense GPCI to determine the new 2010 Medicare payment locality Practice Expense GPCI. The same calculation is performed to determine the 2011 Practice Expense GPCIs, except the current Medicare payment locality Practice Expense GPCI and the national average Practice Expense GPCI are based on 2010 values. Steps in the model include:

- 1. If Medicare payment locality GPCI < national average GPCI, then
- 2. [(National Average GPCI * .70675) (Medicare payment locality GPCI * .70675)]* 0.5, then
- 3. Add above result to Medicare payment locality GPCI
- 4. Equals new 2010 Medicare payment locality GPCI
- Frontier Bonus

For 2011, the Practice Expense GPCI is increased to 1.000 for the Frontier states of Montana, North Dakota, South Dakota, Utah and Wyoming.

• Primary Care Bonus

For 2011, the Medicare allowable charges for primary care services in the prototypical practice are multiplied by 10% and then summed to determine the bonus. The prototypical practice furnishes at least 60% primary care services and is thus eligible for the bonus.

Practice Assumptions and Validation

In order to examine potential changes to primary care physician personal income resulting from the ACA, provisions of the legislation are used to adjust income for a prototypical primary care practice. Defining the characteristics of the prototypical practice requires multiple assumptions, including a constant 2010 Medicare conversion factor of \$36.0846,² a third-party payer conversion factor of 130% of Medicare rates (adjusted to 125% to account for bad debt) and a compensation-to-collection ratio of 0.506.³ The compensation-to-collection ratio suggests that physicians receive in personal income only about 50% of the practice payments collected from Medicare and other insurers. The other 50% covers practice expenses (e.g., office rent and staff salaries) and malpractice insurance premiums.

Additional prototypical practice assumptions are detailed in the tables below (Figures 2 – 4).⁴ The prototypical practice is validated by similar encounter numbers and relative value units (RVUs) compared to 2009 Medical Group Management Association (MGMA) median practice data (Figure 5).⁵ However, since the practice is *prototypical*, it does not represent any one practice. Individual practice income and physician personal income will vary from model outputs.

Prototypical Physician Production per Year						
CPT Code	CPT Description	Volume	% Medicare			
11100	Biopsy, skin lesion	138	80%			
11401	Exc tr-ext b9+marg 0.6-1 cm	138	60%			
12002	Repair superficial wound(s)	92	20%			
17110	Destruct b9 lesion, 1-14	276	60%			
17261	Destruction of skin lesions	184	60%			
20552	Inj trigger point, 1/2 muscl	184	40%			
20605	Drain/inject, joint/bursa	46	20%			
55200	Incision of sperm duct	23	0%			
57420	Exam of vagina w/scope	46	0%			
57460	Bx of cervix w/scope, leep	23	0%			
93015	Cardiovascular stress test	46	60%			
99201	Office/outpatient visit, new	8	20%			
99202	Office/outpatient visit, new	31	20%			
99203	Office/outpatient visit, new	54	40%			
99204	Office/outpatient visit, new	23	60%			
99205	Office/outpatient visit, new	8	60%			
99211	Office/outpatient visit, est	118	40%			
99212	Office/outpatient visit, est	374	40%			
99213	Office/outpatient visit, est	1296	60%			
99214	Office/outpatient visit, est	502	80%			
99215	Office/outpatient visit, est	69	80%			
99222	Initial hospital care	46	80%			
99232	Subsequent hospital care	138	80%			
99305	Nursing facility care, init	6	100%			
99309	Nursing fac care, subseq	84	100%			
99392	Prev visit, est, age 1-4	92	0%			
99393	Prev visit, est, age 5-11	46	0%			
99394	Prev visit, est, age 12-17	23	0%			
99395	Prev visit, est, age 18-39	0	0%			
99396	Prev visit, est, age 40-64	46	0%			
99397	Per pm reeval est pat 65+ yr	23	100%			
	TOTAL	4184				
Figure 2						

E&M CPT Code Distribution							
Est. Office	e Visit	New Offic	e Visit				
99211	5%	99201	6%				
99212	16%	99202	25%				
99213	55%	99203	43%				
99214	21%	99204	19%				
99215	3%	99205	6%				
Figure 3							

Figure	3
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Practice Assumptions	
Average total office visits per day	20.2
E&M clinic office visits per day	12.0
Preventive clinic visits per week	5.0
Hospital admissions per week	1.0
Hospital visits per week	3.0
Patient care days per week	4.5
Patient care weeks per year	46.0
% established patients	95%
Nursing home admissions per month	0.5
Nursing home visits per month	7.0
Figure 4	

Figure 4

2008 MGMA Validation (FP, no OB)					
Category	MGMA Medians Model Baselin				
Ambulatory encounters	3,962	4,000			
Hospital encounters	177	184			
Total encounters	4,139	4,184			
RVU work	4,735	4,619			
RVU total	8,870	8,930			
Figure 5					

Figure 2

² The final 2010-2011 Medicare conversion factor remains uncertain due to ongoing Sustainable Growth Rate (SGR) discussions.

³ Medical Group Management Association. Cost Survey: 2009 Report Based on 2008 Data.

⁴ Thomson-Reuters data regarding national distribution of office-based evaluation and management services.

⁵ Medical Group Management Association. *Physician Compensation and Production Survey: 2009 Report Based on 2008 Data.*

Revenue Change by Medicare Locality

	2010			2011			
	Practice			Practice	Practice		
	Payment	Total Physician	Total Physician	Payment	Payment	Total Physician	Total Physicia
	Increase due to	Personal Income		Increase due to	Increase due to	Personal Income	Personal Incon
Locality	GPCI Changes	Increase (\$)	Increase (%)	GPCI Changes	PC Bonus	Increase (\$)	Increase (%)
		· · · ·					
Alabama	\$14,503	\$7,338	4.0%	\$23,236	\$11,833	. ,	12.9
Alaska	\$0			\$0	\$15,864		6.2
Arizona	\$5,956	. ,	1.5%	\$9,880	\$12,183	. ,	8.8
Arkansas	\$18,881	\$9,554	5.3%	\$27,938	\$11,799		14.5
Anaheim/Santa Ana, CA	\$0			\$0	\$13,904		6.0
Los Angeles, CA	\$0			\$0	\$13,705		6.0
Varin/Napa/Solano, CA	\$0			\$0	\$13,753	\$6,959	6.0
Dakland/Berkley, CA	\$0	\$0	0.0%	\$0	\$13,988	\$7,078	6.0
San Francisco, CA	\$0	\$0	0.0%	\$0	\$14,874	\$7,526	6.0
San Mateo, CA	\$0	\$0	0.0%	\$0	\$14,907	\$7,543	6.0
Santa Clara, CA	\$0	\$0	0.0%	\$0	\$14,208	\$7,189	6.0
/entura, CA	\$0	\$0	0.0%	\$0	\$13,821	\$6,994	6.0
Rest of California*	\$0	\$0	0.0%	\$0	\$12,481	\$6,316	6.1
Colorado	\$3,822	\$1,934	1.0%	\$6,128	\$12,201	\$9,274	7.7
Connecticut	\$0	\$0	0.0%	\$0	\$13,526	\$6,844	6.0
DC + MD/VA Suburbs	\$0	\$0	0.0%	\$0	\$13,783	\$6,974	6.0
Delaware	\$0	\$0	0.0%	\$0	\$12,485	\$6,318	6.3
Fort Lauderdale, FL	\$2,031	\$1,028	0.5%	\$2,914	\$12,821	\$7,962	6.8
Viami, FL	\$0	\$0	0.0%	\$0	\$13,390	\$6,775	6.0
Rest of Florida	\$10,014	\$5,067	2.6%	\$14,770	\$12,449	\$13,773	10.1
Atlanta, GA	\$0	\$0	0.0%	\$1,169	\$12,382	\$6,857	6.4
Rest of Georgia	\$12,911	\$6,533	3.5%	\$20,257	\$12,015	\$16,330	11.9
Hawaii/Guam	\$369	\$187	0.1%	\$369	\$13,042	\$6,786	6.3
daho	\$15,127	\$7,654	4.2%	\$22,473	\$11,919	\$17,402	12.6
Chicago, IL	\$0	\$0	0.0%	\$0	\$13,193	\$6,675	6.0
East St. Louis, IL	\$8,490	\$4,296	2.2%	\$14,171	\$12,427	\$13,458	9.9
Suburban Chicago, IL	\$0	\$0	0.0%	\$0	\$12,969	\$6,562	6.0
Rest of Illinois	\$13,864	\$7,015	3.7%	\$21,349	\$12,141	\$16,946	12.2
Indiana	\$9,115	\$4,612	2.4%	\$14,843	\$12,017	\$13,591	10.3
owa	\$16,426	\$8,311	4.6%	\$24,373	\$11,850	\$18,329	13.3
Kansas	\$14,829	\$7,503	4.1%	\$22,221	\$11,920	\$17,276	12.6
Kentucky	\$16,402	\$8,300	4.5%	\$24,812	\$11,902	\$18,577	13.4
New Orleans, LA	\$2,585	\$1,308	0.6%	\$2,585	\$12,498	\$7,632	6.7
Rest of Louisiana	\$14,930	. ,	4.1%	\$22,508	\$12,025	. ,	12.6
Southern Maine	\$3,693	. ,	0.9%	\$4,075	\$12,246		7.2
Rest of Maine	\$15,335	\$7,759	4.2%	\$22,218	\$11,923	. ,	12.6
Baltimore/Surr. Cntys, MD	\$0		0.0%	\$0	\$12,691	\$6,422	6.3
Rest of Maryland	\$3,060		0.8%	\$5,828	\$12,258		7.6
Metropolitan Boston	\$0			\$0	\$13,976		6.0
Rest of Massachusetts	\$0			\$0	\$12,818		6.
Detroit, MI	\$0			\$0	\$13,032		6.3
Rest of Michigan	\$6,542	\$3,310		\$12,038	\$12,194	. ,	9.4
Vinnesota	\$3,358		0.9%	\$6,080	\$12,046		7.8
Vississippi	\$18,678		5.2%	\$27,365	\$11,941	\$19,889	14.2
Metropolitan Kansas City, MO	\$6,445	\$3,261	1.7%	\$10,924	\$12,280	\$11,741	9.

Figure 6

Figure 6 continues on the next page.

Revenue Change by Medicare Locality (continued)

	2010			2011			
	Practice			Practice	Practice		
	Payment	Total Physician	Total Physician	Payment	Payment	Total Physician	Total Physiciar
	Increase due to	Personal Income	Personal Income	Increase due to	Increase due to	Personal Income	Personal Incom
Locality	GPCI Changes	Increase (\$)	Increase (%)	GPCI Changes	PC Bonus	Increase (\$)	Increase (%)
Metropolitan St Louis, MO	\$6,893	\$3,488	1.8%	\$12,019	\$12,209	\$12,259	9.49
Rest of Missouri*	\$22,885	\$11,580	6.5%	\$33,098	\$11,930	\$22,784	16.09
Montana	\$20,841	\$10,545	5.9%	\$40,199	\$12,160	\$26,494	18.19
Nebraska	\$16,103	\$8,148	4.5%	\$23,126	\$11,832	\$17,689	12.9%
Nevada	\$0	\$0	0.0%	\$311	\$12,464	\$6,464	6.19
New Hampshire	\$3,324	\$1,682	0.8%	\$3,324	\$12,302	\$7,907	7.0%
Northern NJ	\$0	\$0	0.0%	\$0	\$13,931	\$7,049	6.0%
Rest of New Jersey	\$0	\$0	0.0%	\$0	\$13,274	\$6,716	6.0%
New Mexico	\$13,518	\$6,840	3.6%	\$20,541	\$12,122	\$16,527	11.99
Manhattan, NY	\$0			\$0	\$14,324	\$7,248	6.0%
NYC Suburbs/Long I., NY	\$0 \$0			\$0	\$14,268	\$7,219	6.0%
Poughkpsie/N NYC Suburbs, NY	\$0			\$0	\$12,724	\$6,438	6.19
Queens, NY	\$0			\$0	\$13,866	\$7,016	6.0%
Rest of New York	\$6,869	\$3,476	1.8%	\$12,458	\$11,965	\$12,358	9.6%
North Carolina	\$11,200		3.0%	\$16,603	\$12,045	\$14,496	10.89
North Dakota	\$21,609	\$10,934	6.2%	\$41,360	\$12,062	\$27,032	18.69
Ohio	\$7,179	\$3,632	1.9%	\$12,490	\$12,254	\$12,520	9.5%
Oklahoma	\$18,041	\$9,129	5.0%	\$26,913	\$11,870	\$19,625	14.19
Portland, OR	\$0			\$1,097	\$12,217	\$6,737	6.4%
Rest of Oregon	\$11,795	\$5,968	3.2%	\$17,106	\$11,994	\$14,725	11.09
Metropolitan Philadelphia, PA	\$0		0.0%	\$0	\$13,118	\$6,638	6.0%
Rest of Pennsylvania	\$7,322		1.9%	\$12,726	\$12,198	\$12,611	9.6%
Puerto Rico	\$40,278		13.0%	\$56,364	\$11,383	\$34,280	25.4%
Rhode Island	\$0	\$0	0.0%	\$0	\$12,837	\$6,496	6.0%
South Carolina	\$12,005	\$6,074	3.3%	\$18,287	\$11,937	\$15,293	11.49
South Dakota	\$21,102		6.0%	\$38,236	\$12,074	\$25,457	17.5%
Tennessee	\$12,666	\$6,409	3.4%	\$19,735	\$11,953	\$16,034	11.8%
Austin, TX	\$3,287	\$1,663	0.8%	\$5,962	\$12,295	\$9,238	7.7%
Beaumont, TX	\$12,560	\$6,355	3.3%	\$20,276	\$12,173	\$16,419	11.89
Brazoria, TX	\$6,244	\$3,159	1.6%	\$11,786	\$12,361	\$12,219	9.3%
Dallas, TX	\$594	\$300	0.1%	\$2,483	\$12,440	\$7,551	6.7%
Fort Worth, TX	\$4,396	\$2,224	1.1%	\$8,505	\$12,272	\$10,513	8.4%
Galveston, TX	\$5,259	\$2,661	1.3%	\$9,091	\$12,324	\$10,836	8.5%
Houston, TX	\$1,666	\$843	0.4%	\$4,249	\$12,531	\$8,491	7.29
Rest of Texas	\$15,228	\$7,705	4.1%	\$22,759	\$12,086	\$17,632	12.6%
Utah	\$11,564	\$5,851	3.1%	\$23,070	\$12,280	\$17,887	12.6%
Vermont	\$7,790	\$3,942	2.0%	\$10,511	\$12,129	\$11,456	9.0%
Virginia	\$8,137	\$4,117	2.1%	\$12,755	\$12,092	\$12,572	9.6%
Virgin Islands	\$2,793	\$1,413	0.7%	\$5,745	\$12,295	\$9,128	7.6%
Seattle (King Cnty), WA	\$0		0.0%	\$0	\$12,728	\$6,441	6.1%
Rest of Washington	\$4,925	\$2,492	1.3%	\$8,063	\$12,178	\$10,242	8.3%
West Virginia	\$18,024	\$9,120	5.0%	\$27,960	\$12,065	\$20,253	14.29
Wisconsin	\$8,531	\$4,317	2.3%	\$14,120	\$11,959	\$13,196	10.19
Wyoming	\$20,090	\$10,166	5.6%	\$31,978	\$11,951	\$22,228	15.5%
MEAN	\$6,990	\$3,537	1.9%	\$11,122	\$12,620	\$12,013	9.3%
MEDIAN	\$4,109	\$2,079	1.1%	\$7,095	\$12,280	\$9,758	8.0%

Figure 6 (continued)

DISCUSSION

Based on model outputs detailed in the tables above (Figure 6), the ACA primary care payment changes improve primary care payment in most Medicare payment localities in 2010 and in all Medicare payment localities in 2011. Average primary care physician personal income increases due to the ACA are minimal in 2010 (\$3,537 or 1.9%) and modest in 2011 (\$12,013 or 9.3%). ACA adjustments to the GPCIs tend to increase physician personal income more in entire-state Medicare payment localities than in states with multiple Medicare payment localities, thus generally benefitting rural practices. Entire state Medicare localities tend to be more rural. However, the primary care bonus requirement that practices furnish at least 60% primary care services may make some rural practices ineligible for the bonus. Any given primary care practice provides both cognitive (including ACA-defined primary care practice, as the only source of care, provides a substantial set of procedures in order to assure comprehensive care to rural residents. Since rural practices may tend to offer more procedures (and thus proportionally less primary care services) than urban/suburban practices, the ACA's impact on rural primary care practices may not meet expectations.

All legislative payment improvements should be considered in total. For example, a 10% bonus for Medicare services furnished in a Health Professional Shortage Area continues, and recent changes to RVU values have been favorable to primary care. Nonetheless, significant income differences will persist between primary care and other medical specialties. It is therefore unclear if repeatedly "tweaking" primary care payment will eventually mitigate primary care and rural physician shortages. To reduce persistent physician maldistribution, public policy that specifically targets physician shortage areas and/or specialties with significant payment bonuses may be more effective than minor changes to the RBRVS system.

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